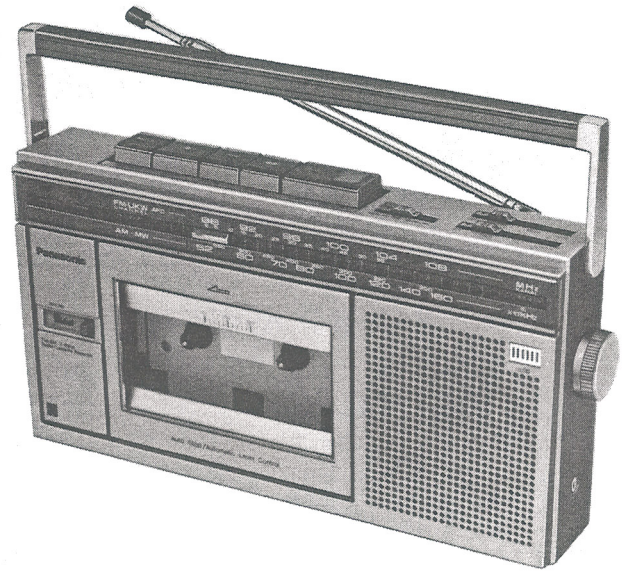
Service Manual

Radio Cassette

RX-1810

FM/AM Radio Cassette Recorder



RX-1810 MECHANISM SERIES

■ SPECIFICATIONS

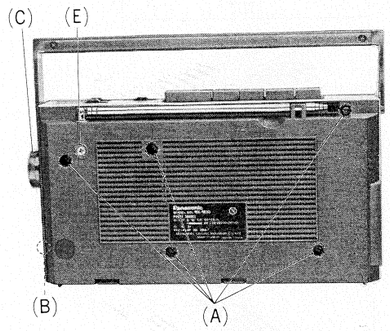
Power Requirement:	Battery; 9V (six UM-3, "AA" size dry batteries)
Power Output:	1.7W...(DC max.)
Frequency Range:	150~8,000Hz
Recording System:	AC bias, Magnet erase
Tape Speed:	4.8cm/s (1-7/8 ips)
Program Time:	1 hour with C-60 cassette tape
Track System:	2-track 1-channel monaural recording and playback
Input:	MIC; sensitivity 0.25mV/ap-aplicable microphone impedance 200~600Ω DC IN; 9V
Output:	EARPHONE/EXT. SP. 8Ω
Others:	REMOTE; For start and stop at hand
Speaker:	8cm (3") PM dynamic speaker
Radio Frequency Range:	FM; 87.5~108MHz AM; 520~1610kHz (577~186m)
Intermediate Frequency:	FM; 10.7MHz AM; 455kHz
Sensitivity:	FM; 4.5μV/50mW output AM; 170μ/m/50mW output
Dimensions:	23.0cm(W)×12.5cm(H)×5.2cm(D) [9-1/16"(W)×4-15/16"(H)×2-1/16"(D)]
Weight:	1.0kg (2 lbs 3 oz.) without batteries

Specifications are subject to change without notice.

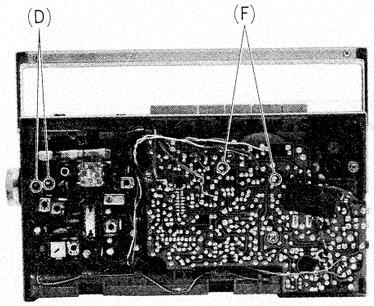
Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

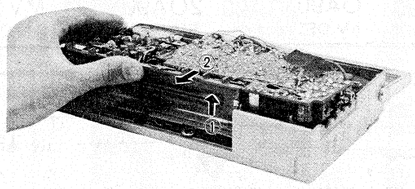
DISASSEMBLY INSTRUCTIONS



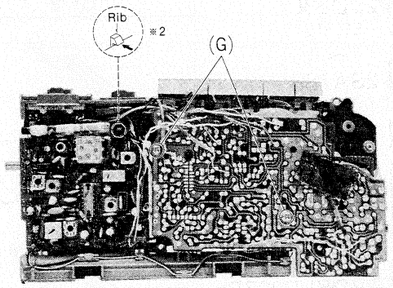
[Fig. 2]



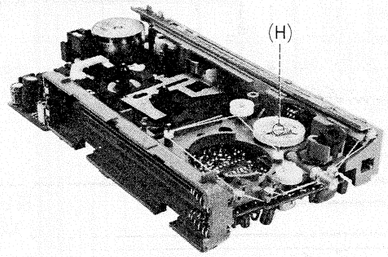
[Fig. 3]



[Fig. 4]



[Fig. 5]

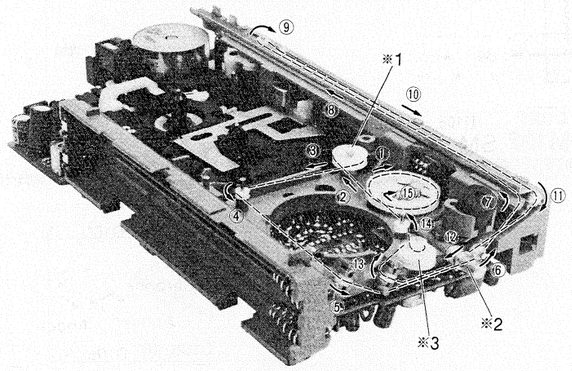


[Fig. 6]

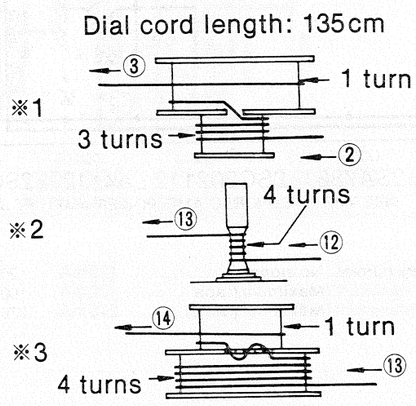
Procedure	To remove—.	Remote—.	Shown in Fig. —.
1	Rear Cabinet Ass'y	Screw 3×30 .....(A)×5, Screw 3×6 .....(B)×1, Knob .....(C)×1, Socket .....(D)×2	2, 3
	Telescopic Antenna	Screw 3×6 .....(E)×1	2
2	Chassis	Unsolder Speaker Wires .....(F)×2 ※1	3, 4
3	Audio Circuit Board	Screw 3×10 .....(G)×2	5
4	Radio Circuit Board	Screw 1.7×4.....(H)×1 ※2	5, 6

※1. Pull out the chassis in the direction of arrow (1) & (2), as shown in fig. 4.
※2. To remove the radio circuit, push the rib of chassis.

DIAL THREDING



[Fig. 7]



ALIGNMENT

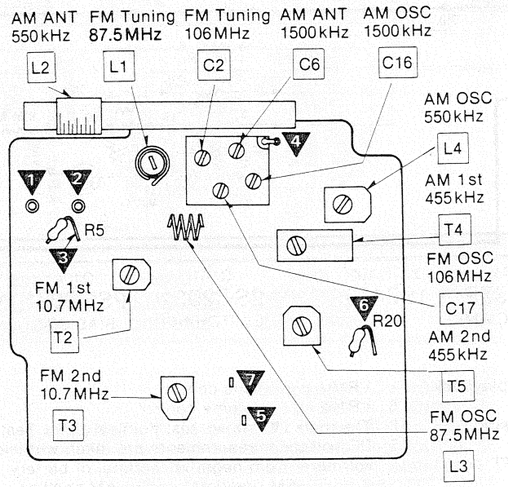
■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

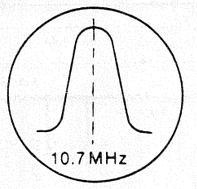
Notes:
1. Set volume control to maximum.
2. Set tone control to treble.
3. Set TAPE/AM/FM selector to AM or FM.
4. Set power source voltage to 9VDC.
5. Output of signal generator should be no higher than necessary to obtain an output reading.

	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
	AM ALIGNMENT					
(1)	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455kHz 30% Mod. with 400Hz.	Point of non-interference.	Output meter across voice coil.	T4 (AM 1st IFT) T5 (AM 2nd IFT)	Adjust for maximum output.
(2)	〃	550kHz	550kHz [14.0mm(9/16")]	〃	L4 (AM OSC Coil) (*1) L2 (AM ANT Coil)	Adjust for maximum output. Adjust L2 by moving coil bobbin along ferrite core.
(3)	〃	1500kHz	1500kHz [96.1mm(3-25/32")]	〃	C16 (AMOSC Trimmer) C6 (AM ANT Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
	(*1) Cement antenna bobbin with wax after completing alignment.					
	FM-IF ALIGNMENT					
(4)	Connect to test point ▼3. Negative side to test point ▼2.	10.7MHz	Point of non-interference.	Connect vert. amp. of scope to testpoint ▼5. Negative side to test point ▼7.	T2 (FM IFT) T3 (FM IFT)	Adjust for maximum amplitude. (Refer to fig. 9)
(5)	〃	〃	〃	〃	T3 (FM IFT) (Secondary)	Adjust for maximum amplitude. (Refer to fig. 10.)
	FM-RF ALIGNMENT					
(6)	Connect to test point ▼1 through FM dummy antenna. Negative side to test point ▼2. (Refer to fig. 11.)	87.5MHz	87.5MHz [0mm]	Output meter across Voice coil.	L3 (FM OSC Coil) L1 (FM TUNE Coil)	(*2) Adjust for maximum output.
(7)	〃	106MHz	106MHz [89.7mm(3-17/32")]	〃	C17 (FM OSC Trimmer) C2 (FM TUNE Trimmer)	(*2) Adjust for maximum output. Repeat steps (6) and (7).
	(*2) Three output responses will be present; proper tuning is the center frequency.					

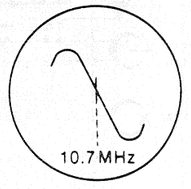
ADJUSTMENT PARTS LOCATION



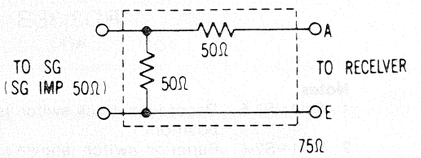
[Fig. 8]



[Fig. 9]

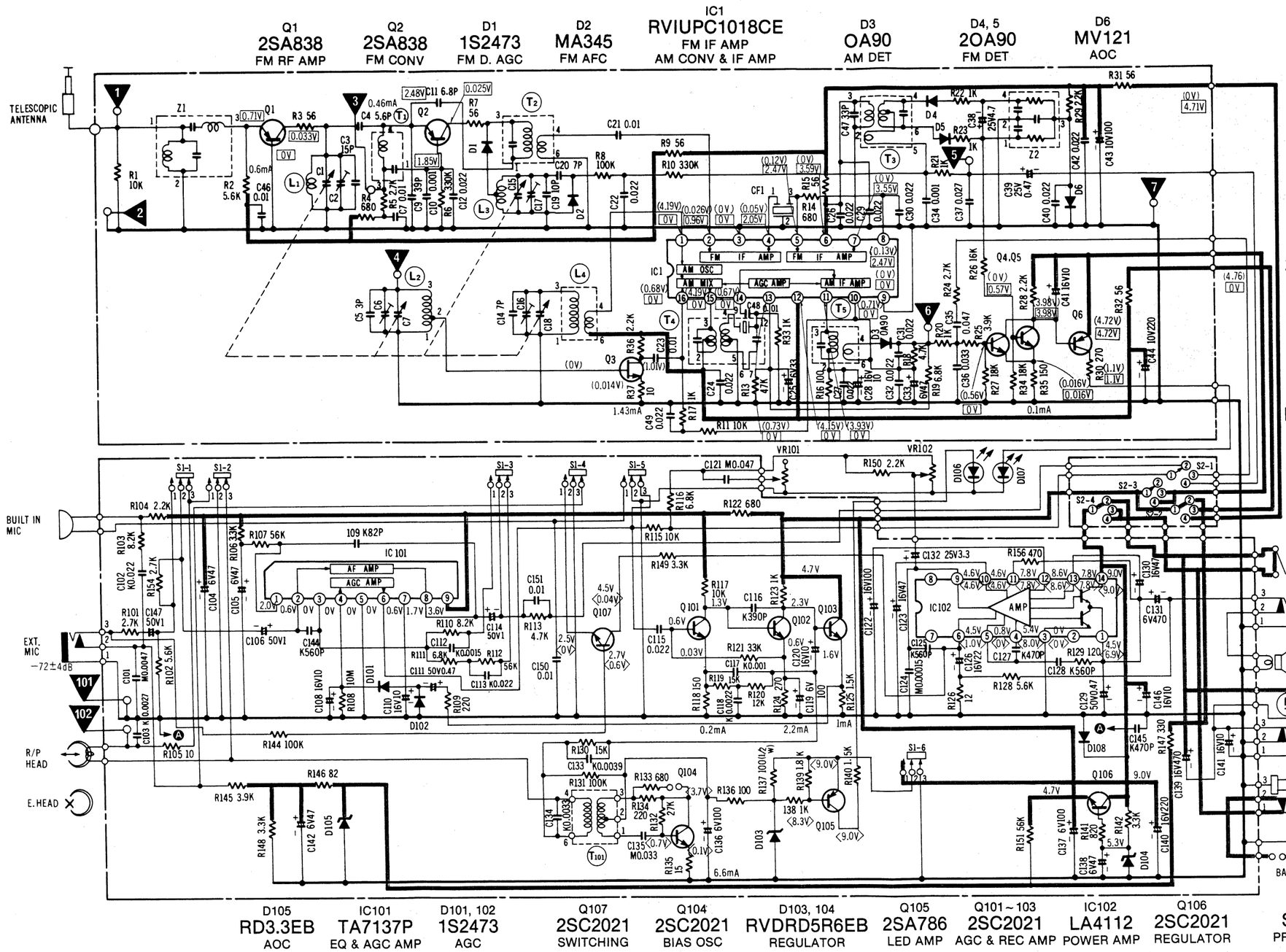


[Fig. 10]



[Fig. 11] FM Dummy Antenna

SCHEMATIC DIAGRAM MODEL RX-1810



Q4, 5 2SD636 LED AMP

Q6 2SA786 LED AMP

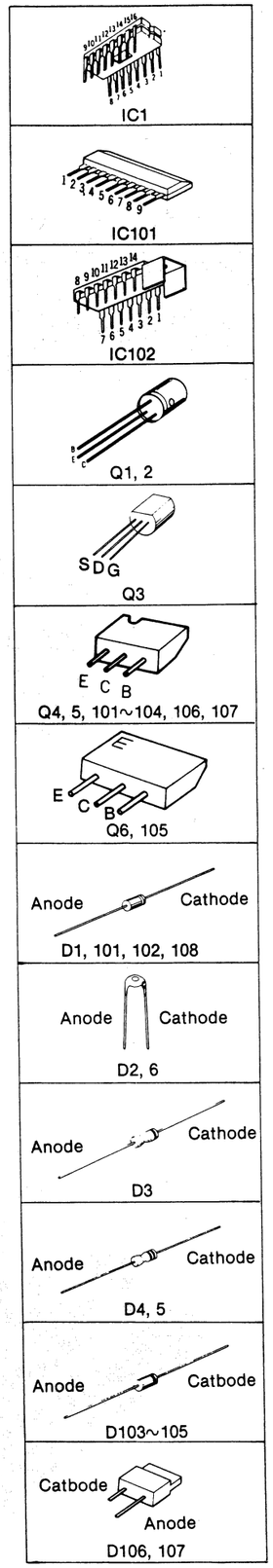
D106 RVDSLP137B LED (REC/BATT)

D107 RVDSLP237B LED (TUNNING)

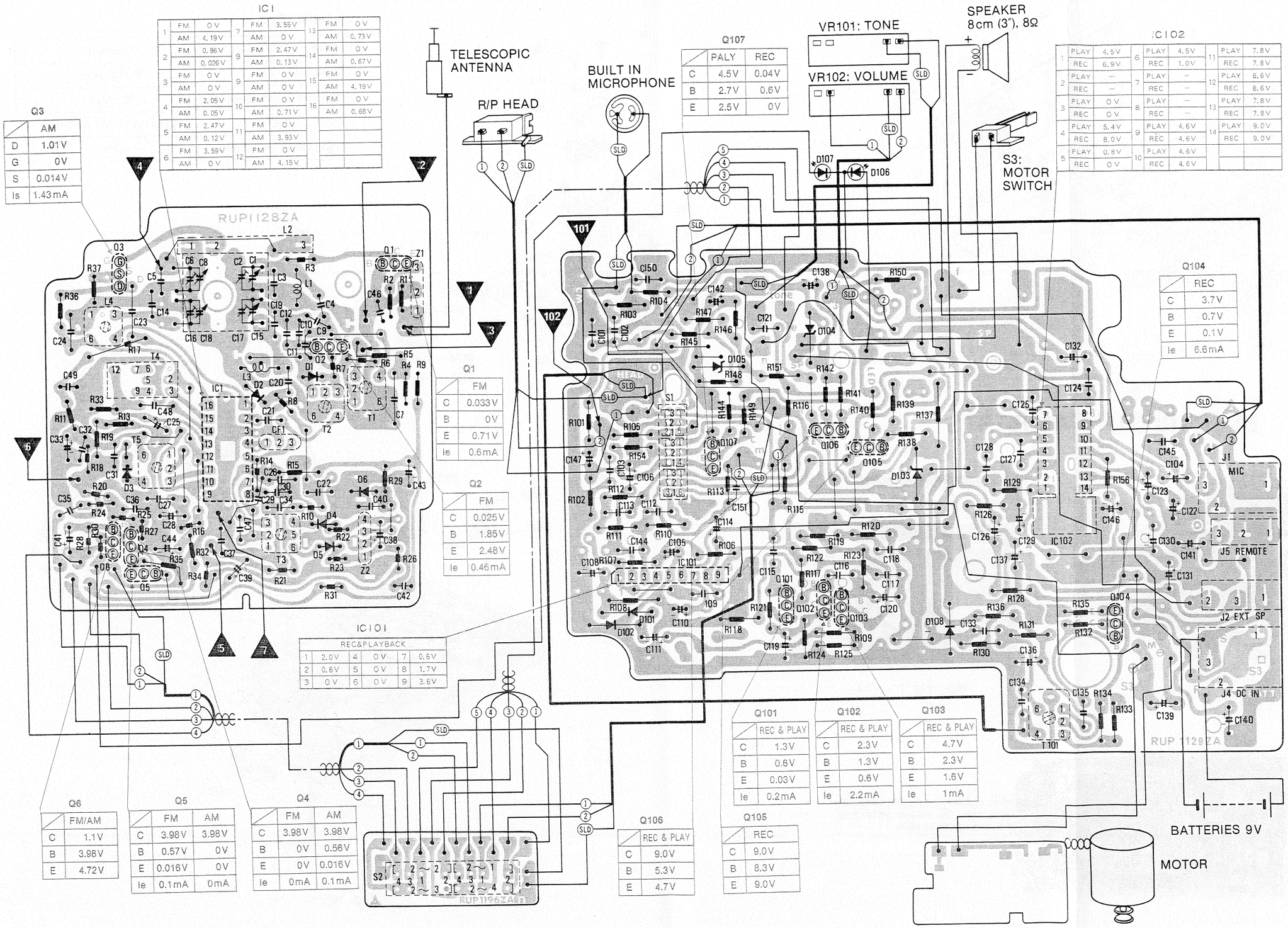
Output:
DC 2.5V or more
Overall frequency Response:
1kHz: 0dB
200Hz: −2~5dB
5kHz: −4~6dB

Notes:

1. S1-1~S1-6...Record/playback switch (shown in playback position).
2. S2-1~S2-4...Function switch (shown in tape position). 2...tape, 3...AM, 4...FM
3. S3 .....Motor ON/OFF switch (shown in OFF position).
4. VR101 .....Tone control.
5. VR102 .....Volume control.
6. The mark (▼) shows test point. e.g. ▽ = Test point 1.
7. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
   [ ]...FM position, ( )...AM position,
   < >...Rec position.
8. Battery current: No signal 120mA
   Maximum (tape) 180mA
   Maximum (radio) 270mA



WIRING CONNECTION DIAGRAM MODEL RX-1810



IC1

1	FM	0 V	7	FM	3.55 V	13	FM	0 V
	AM	4.19 V		AM	0 V		AM	0.73 V
2	FM	0.96 V	8	FM	2.47 V	14	FM	0 V
	AM	0.026 V		AM	0.13 V		AM	0.67 V
3	FM	0 V	9	FM	0 V	15	FM	0 V
	AM	0 V		AM	0 V		AM	4.19 V
4	FM	2.05 V	10	FM	0 V	16	FM	0 V
	AM	0.05 V		AM	0.71 V		AM	0.68 V
5	FM	2.47 V	11	FM	0 V			
	AM	0.12 V		AM	3.93 V			
6	FM	3.59 V	12	FM	0 V			
	AM	0 V		AM	4.15 V			

IC102

1	PLAY	4.5 V	6	PLAY	4.5 V	11	PLAY	7.8 V
	REC	6.9 V		REC	1.0 V		REC	7.8 V
2	PLAY	—	7	PLAY	—	12	PLAY	8.6 V
	REC	—		REC	—		REC	8.6 V
3	PLAY	0 V	8	PLAY	—	13	PLAY	7.8 V
	REC	0 V		REC	—		REC	7.8 V
4	PLAY	5.4 V	9	PLAY	4.6 V	14	PLAY	9.0 V
	REC	8.0 V		REC	4.6 V		REC	9.0 V
5	PLAY	0.8 V	10	PLAY	4.6 V			
	REC	0 V		REC	4.6 V			

Q107

	PALY	REC
C	4.5 V	0.04 V
B	2.7 V	0.6 V
E	2.5 V	0 V

Q3

	AM
D	1.01 V
G	0 V
S	0.014 V
Is	1.43 mA

Q1

	FM
C	0.033 V
B	0 V
E	0.71 V
Ie	0.6 mA

Q2

	FM
C	0.025 V
B	1.85 V
E	2.48 V
Ie	0.46 mA

IC101

REC&PLAYBACK					
1	2.0 V	4	0 V	7	0.6 V
2	0.6 V	5	0 V	8	1.7 V
3	0 V	6	0 V	9	3.6 V

Q104

	REC
C	3.7 V
B	0.7 V
E	0.1 V
Ie	6.6 mA

Q101

	REC & PLAY
C	1.3 V
B	0.6 V
E	0.03 V
Ie	0.2 mA

Q102

	REC & PLAY
C	2.3 V
B	1.3 V
E	0.6 V
Ie	2.2 mA

Q103

	REC & PLAY
C	4.7 V
B	2.3 V
E	1.6 V
Ie	1 mA

Q105

	REC
C	9.0 V
B	8.3 V
E	9.0 V

Q106

	REC & PLAY
C	9.0 V
B	5.3 V
E	4.7 V

Q6

	FM/AM
C	1.1 V
B	3.98 V
E	4.72 V

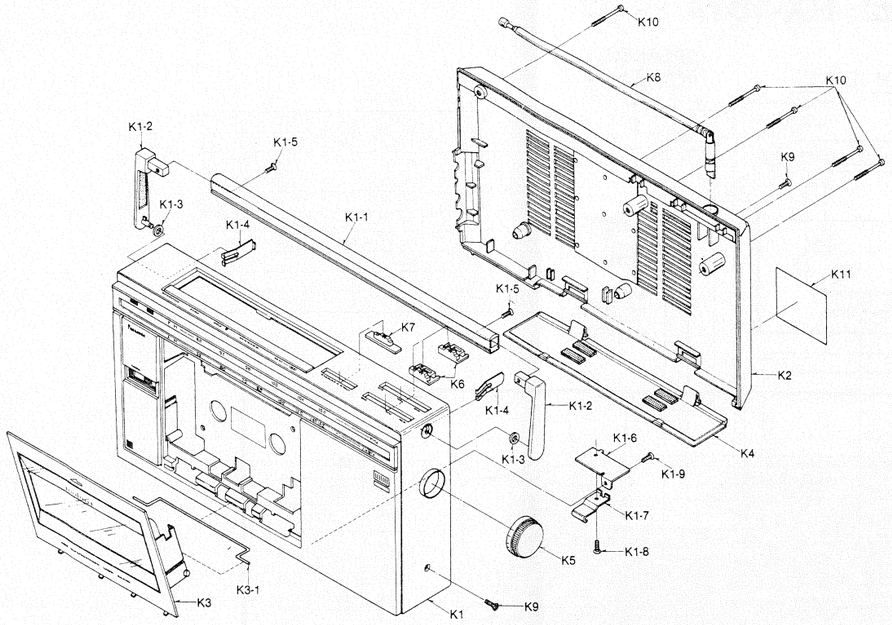
Q5

	FM	AM
C	3.98 V	3.98 V
B	0.57 V	0 V
E	0.016 V	0 V
Ie	0.1 mA	0 mA

Q4

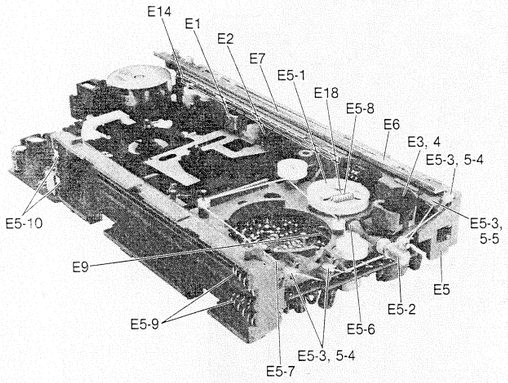
	FM	AM
C	3.98 V	3.98 V
B	0 V	0.56 V
E	0 V	0.016 V
Ie	0 mA	0.1 mA

CABINET PARTS

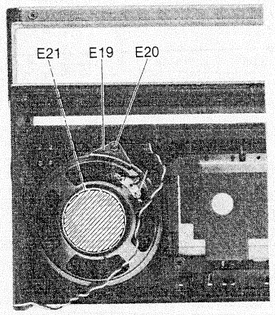


[Fig. 12]

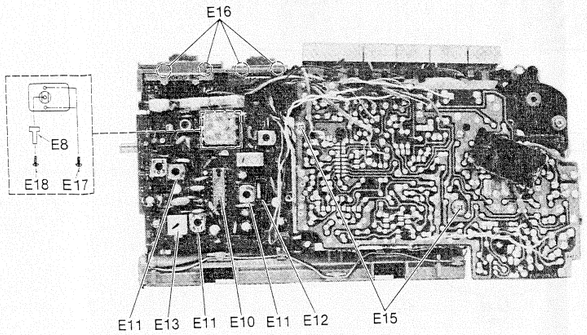
ELECTRICAL PARTS



[Fig. 13]



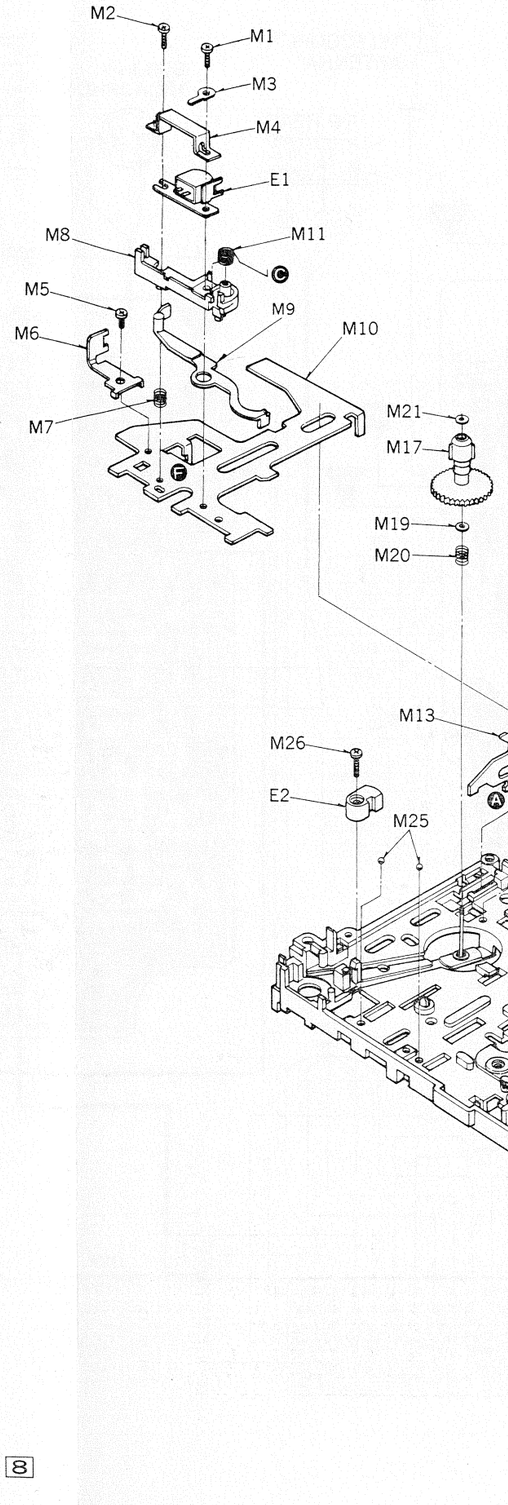
[Fig. 14]



[Fig. 15]

- After replacing speaker, insulator (E21) must be always sticked to the rear of the speaker.

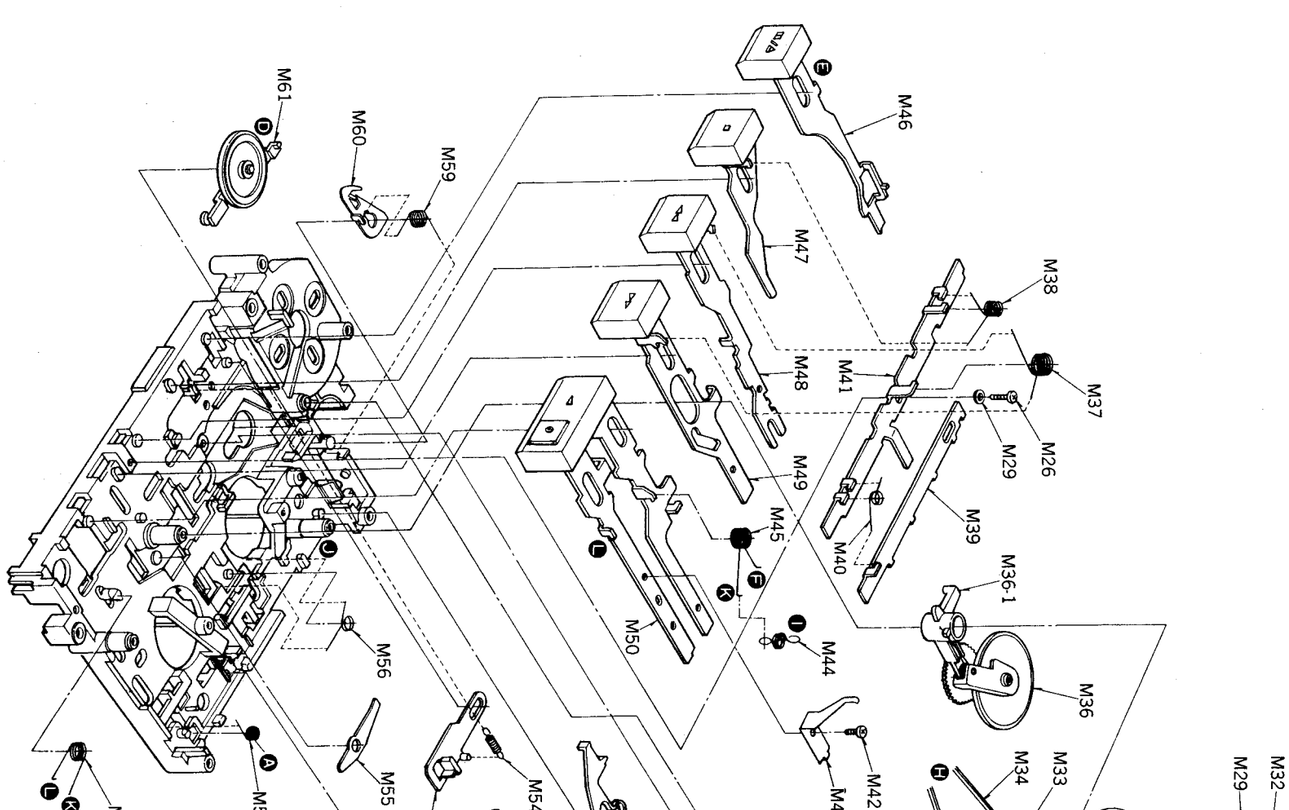
EXPOLDED VIEWS



[Fig. 16]

Specifications

Pressure of pressure roller	360±60gr
Takeup tension	50±20gr-cm
Tension of delectpiece	60±10gr
Wow & futter	Less than 0.3% (WRMS)
Tape speed fluctuation	±3%



[Fig. 17]

■REPLACEMENT PARTS LIST .....Model RX-1810

(RD8001-5063C)

NOTES: 1. ⚠ indicates that only parts specified by the manufacturer be used for safety.
2. The S mark indicates service standard parts and may differ from production parts.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		MECHANICAL PARTS		
M1	XSN2+6S	Screw, + 2x6	1	S
M2	XSB2D7FX	Screw, + 2x7	1	
M3	QJT0039	Terminal, Head Earth	1	
M4	QTS1501	Shield Plate, Head	1	
M5	XSN26+3	Screw, + 2.6x3	1	S
M6	QMG0084	Guide, Tape	1	
M7	QBC1322	Spring, Head Adjusting	1	
M8	QMZ1234	Table, Head	1	
M9	QML3534	Lever, Auto-Stop Detector	1	
M10	QMK1819	Plate, Head Base	1	
M11	QBN1703	Spring, Pressure Roller	1	
M12	QBN1711	Spring, Cassette Retainer	1	
M13	QML3527	Lever, Erase Safety	1	
M14	QXU0159	Motor Ass'y	1	
M15	QML3533	Lever, Cassette-up	1	
M16	QBN1702	Spring, Idler	1	
M17	QDR1141	Supply Reel Table Ass'y	1	
M18	QXD0113	Takeup Reel Table Ass'y	1	
M19	QBJ3224	Washer	3	
M20	QBC1272	Spring, Back Tension	1	
M21	QBW2008	Washer	2	
M22	QDC0120	Counter	1	
M23	QDB0270	Belt, Counter	1	
M24	QXL1325	Pressure Roller Ass'y	1	
M25	QDK0012	Ball, Steel	3	
M26	XTN26+8B	Screw, + 2.6x8	2	S
M27	QMC0108	Pipe, Motor	2	
M28	QBG1420	Cushion, Motor	4	
M29	XWG26	Washer	5	S
M30	XSN26+8	Screw, + 2.6x8	2	S
M31	QXH0318	Flywheel Holding Plate Ass'y	1	
M32	XTN26+10B	Screw, + 2.6x10	2	S
M33	QXF0156	Flywheel Ass'y	1	
M34	QDB0269	Belt, Flywheel	1	
M35	QBC1359	Spring, Flywheel	1	
M36	QXL1328	Fast Forward Frame Ass'y	1	
M36-1	QBN1710	Spring, Fast Forward Lever	1	
M37	QBN1708	Spring, Fast Forward Rod	1	
M38	QBN1709	Spring, Stop Rod	1	
M39	QMR1783	Rod, Lock	1	
M40	QBN1714	Spring, Lock Rod	1	
M41	QMF2085	Plate, Rod Holding	1	
M42	XTN26+4B	Screw, + 2.6x4	1	S
M43	QBP1859	Spring, Record Retainer	1	
M44	QBT1890	Spring, Base Plate Retainer	1	
M45	QBN1707	Spring, Playback Rod	1	
M46	QXR0547	Eject/Pause Rod Ass'y	1	
M47	QXR0546	Stop Rod Ass'y	1	
M48	QXR0545	Fast Forward/Cue Rod Ass'y	1	
M49	QXR0544	Rewind/Review Rod Ass'y	1	
M50	QXR0543	Playback/Record Rod Ass'y	1	
M51	QBN1701	Spring, Change Lever	1	
M52	QML3531	Lever, Change	1	
M53	QMR1784	Rod, Auto-Stop Detection	1	
M54	QBT1889	Spring, Auto-Stop Detection Rod	1	
M55	QML3526	Lever, Review	1	
M56	QBN1712	Spring, Fast Forward	1	
M57	QBN1704	Spring, Erase Safety Lever	1	
M58	QBN1706	Spring, Record Rod	1	
M59	QBN1705	Spring, Pause Lock Lever	1	
M60	QML3528	Lever, Pause Lock	1	
M61	QXL1324	Idler Lever Ass'y	1	
M62	XWG2x7.5B	Washer	2	
		INTEGRATED CIRCUIT, TRANSISTORS AND DIODES		
IC1	RVIUPC1018CE	IC	1	
IC101	TA7137P	IC	1	
IC102	LA4112	IC	1	
Q1,2	2SA838	Transistor (Ge)	2	
Q3	2SK104	Transistor (Si)	1	
Q4,5	2SD636	"	2	
Q6,105	2SA786	Transistor (Ge)	2	
Q101~104, 106,107	2SC2021	Transistor (Si)	6	
D1,101, 102	MA161	Diode (Si)	3	S
D2	MA345	"	1	
D3	OA90	Diode (Ge)	1	S
D4,5	2OA90	"	2	S
D6	MV121	Diode (Si)	1	
D103,104	RVDRD5R6EB	Zener	2	
D105	RD3.3EB	"	1	
D106	RVDSLP137B	LED (REC/BATT)	1	
D107	RVDSLP237B	LED (TUNING)	1	
D108	SM112	Diode (Si)	1	S
		COILS AND TRANSFORMERS		
L1	RLD4N5	Tuning Coil, FM	1	
L2	RLF2Y9	Antenna Coil, AM	1	
L3	RLO4Y43	Oscillator Coil, FM	1	
L4	QLO2M5	Oscillator Coil, AM	1	
T1	RLI4M103	Trap Coil, FM	1	
T2	RLI4M101	IFT, FM 1st	1	
T3	TLI4M511	IFT, FM 2nd	1	
T4	RLI7W105Q	IFT, AM 1st	1	
T5	RLI2M402	IFT, AM 2nd	1	
T101	QLB0174	Oscillator Coil, Bias	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		VARIABLE RESISTORS		
VR101	EVAL14C06D24	Variable Resistor, 20kΩ (D)	1	
VR102	EVAL14C06A14	" 10kΩ (A)	1	
		VARIABLE CAPACITOR		
C1,2,6,8,	15,16,17,18			
	PVC2LH16T	Tuning Capacitor	1	
		CERAMIC FILTER		
CF1	SFE10.7MA5	Ceramic Filter, 10.7MHz	1	
		COMPONENT COMBINATION		
Z1	RXABPMB3	Component Combination	1	
Z2	EXA5DM04C	"	1	
		SPEAKER		
	EAS8P48S	Speaker, 8cm (3"), 8Ω	1	
		SWITCHES		
S1	RSS2F02Z	Switch, Record/Playback	1	
S2	RSS3D06Z	" Tape/AM/FM	1	
S3	QSB0170	" Motor	1	
		JACKS		
J1	RJJ87Y	Jack, EXT. MIC	1	
J2	RJJ19Z	" EXT. SP	1	
J3	QJA0156	" Remote	1	
J4	RJJ97Y	" DC IN	1	
		RESISTORS (Value is in OHMS)		
R37,105	ERD25TJ100	10 1/4W Carbon	2	S
R126	ERD25TJ120	12 " "	1	S
R135	ERD25TJ150	15 " "	1	S
R3,7,9,15	,31,32			
	ERD25TJ560	56 " "	6	S
R146	ERD25TJ820	82 " "	1	S
R137	ERD12TJ101	100 1/2W "	1	S
R16,136	ERD25TJ101	100 1/4W "	2	S
R129	ERD25TJ121	120 " "	1	S
R35,118	ERD25TJ151	150 " "	2	S
R109,134	ERD25TJ221	220 " "	2	S
R30,124	ERD25TJ271	270 " "	2	S
R147	ERD25TJ331	330 " "	1	S
R156	ERD25TJ471	470 " "	1	S
R4,14,122	,133			
	ERD25TJ681	680 " "	4	S
R141	ERD25TJ821	820 " "	1	S
R17,20,21	,22,23,33,123	,138		
	ERD25TJ102	1 K " "	8	S
R125,140	ERD25TJ152	1.5 K " "	2	S
R139	ERD25TJ182	1.8 K " "	1	S
R28,29,36	,104,150			
	ERD25TJ222	2.2 K " "	5	S
R5,24,101	,154			
	ERD25TJ272	2.7 K " "	4	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R106,142	,148,149			
	ERD25TJ332	3.3 K 1/4W Carbon	4	S
R25,145	ERD25TJ392	3.9 K " "	2	S
R18,113	ERD25TJ472	4.7 K " "	2	S
R2,102,128				
	ERD25TJ562	5.6 K " "	3	S
R19,111,116				
	ERD25TJ682	6.8 K " "	3	S
R103,110	ERD25TJ822	8.2 K " "	2	S
R1,11,115	,117			
	ERD25TJ103	10 K " "	4	S
R120,130	ERD25TJ123	12 K " "	2	S
R119	ERD25TJ153	15 K " "	1	S
R26	ERD25TJ163	16 K " "	1	S
R27,34	ERD25TJ183	18 K " "	2	S
R12,132	ERD25TJ273	27 K " "	2	S
R121	ERD25TJ333	33 K " "	1	S
R13	ERD25TJ473	47 K " "	1	S
R107,112	,151			
	ERD25TJ563	56 K " "	3	S
R8,131,144				
	ERD25TJ104	100 K " "	3	S
R6,10	ERD25TJ334	330 K " "	2	S
R108	ERC14GJ106	10 M " Solid	1	S
		CAPACITORS (Value is in MICRO FARADS except P.P=PICO FARADS)		
C5	ECCD1H030C	3 P 50V Ceramic	1	
C14	ECCD1H070DC	7 P " "	1	
C20	ECCD1H080DC	8 P " "	1	
C3,19	ECCD1H180KC	18 P " "	2	
C9,47	ECCD1H330K	33 P " "	2	
C109	ECCD1H820K	82 P " "	1	
C116	ECKD1H391KB	390 P " "	1	
C127,145	ECKD1H471KB	470 P " "	2	
C125,128	,144			
	ECDK1H561KB	560 P " "	3	
C10,34	ECKD1H102MD	0.001 " "	2	
C117,124	ECKD1H152KB	0.0015 " "	2	
C21,150	ECKD1H103PF	0.01 " "	2	
C22,31, 32	ECKD1H223PF	0.022 " "	3	
C4	ECBA1H5R6K	5.6 P " Ceramic(Cylinder)	1	
C11	ECBA1H6R8K	6.8 P " "	1	
C7,23,46,	48,151			
	ECBA1E103NM	0.01 25V "	5	
C12,24,26	,27,29,30,31,40,42,49			
	ECBA1E223MY	0.022 " "	10	
C112	ECFVD152K	0.0015 " Semi-Conductor	1	
C118	ECFVD222KA	0.0022 " "	1	
C133	ECFVD472KA	0.0047 " "	1	
C102,113	,115			
	ECFVD223MD	0.022 " "	3	
C37	ECFVD273MD	0.027 " "	1	
C36,135	ECFVD333MD	0.033 " "	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C35,101,121				
	ECFVD473MD	0.047 25V Semi-Conductor	3	
C103	ECQS05272MZ	0.0027 50V Styrol	1	
C134	ECQS05332MZ	0.0033 " "	1	
C39,111,129				
	ECEA50ZR47	0.47 " Electrolytic	3	S
C106,114,147				
	ECEA50Z1	1 " "	3	S
C132	ECEA25Z3R3	3.3 25V "	1	S
C38	ECEA25Z4R7	4.7 " "	1	S
C108	ECEA16Z10	10 16V "	1	S
C28,41,110,120,141,146				
	ECEA1HS100	10 50V "	6	S
C126	ECEA16Z22	22 16V "	1	S
C25	ECEA1CS330	33 " "	1	S
C33,104,105,138,142				
	ECEA1AS470	47 10V "	5	S
C123,130	ECEA1ES470	47 25V "	2	S
C43,44,119,136,137				
	ECEA1AS101	100 10V "	5	S
C122	ECEA1ES101	100 25V "	1	S
C140	ECEA1CS221	220 16V "	1	S
C44	ECEA1AS221	220 10V "	1	S
C43	ECEA1AS331	330 " "	1	S
C131	ECEA0JS471	470 6V "	1	S
C139	ECEA1CS471	470 16V "	1	S
		CABINET PARTS		
K1	QYMK0237W	Front Panel Ass'y	1	
K1-1	RYHX1810X	Handle Ass'y	1	
K1-2	RKX175Z	Arm, Handle	2	
K1-3	RKX174Z	Retainer, Handle	2	
K1-4	RUS395Z	Spring, Handle	2	
K1-5	XSS26+6BNS	Screw, + 2.6x6	2	
K1-6	RMD1093Z	Angle, Spring Holding	1	
K1-7	RUS398Z	Spring, Cassette Lid	1	
K1-8	XSN3+4S	Screw, + 3x4	1	S
K1-9	XTN3+8G	Screw, + 3x8	1	
K2	RYFX1810X7	Rear Cabinet Ass'y	1	
K3	QYFK0094	Cassette Lid Ass'y	1	
K3-1	RUS394Z	Spring, Cassette Lid	1	
K4	QYFK0093	Cover, Battery	1	
K5	RBN519Z	Knob, Tuning	1	
K6	QYQK0073	Knob, Volume, Tone	2	
K7	RBD110Z	Knob, Selector	1	
K8	XEARR150FBY	Telescopic Antenna	1	
K9	XSS3+6FN	Screw, + 3x6	2	
K10	XTN3+30GFN	" + 3x30	5	
K11	RGT742Y	Plate, Name	1	
		ELECTRICAL PARTS		
E1	QWY0134Z	Head, Record/Playback	1	
E2	QWY2139	Head, Erase	1	
E3	RJM142Z	Built-in Microphone	1	
E4	QBG1616	Cover, Microphone	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
E5	RZAX1810X	Dial Chassis Ass'y	1	
E5-1	RDD263Z	Drum, Dial	1	
E5-2	RDT6163Z	Shaft, Tuning	1	
E5-3	QDP1684	Roller	4	
E5-4	RDY48Z	Shaft, Roller	3	
E5-5	RDY47Z	Shaft, Roller	1	
E5-6	XUC3FT	Circlip	1	S
E5-7	RDZ05A	Cord, Dial	1 ROLL	
E5-8	QBT153I	Spring, Dial	1	
E5-9	RJC739Z	Terminal, Battery -	2	
E5-10	RJC361Z	Terminal, Battery +	2	
E6	QYQK0072	Pointer Ass'y	1	
E7	RKD542Z	Scale, Dial	1	
E8	RHR452Z	Spacer, Drum	1	
E9	QEQK0128	Shield Plate, FM OSC	1	
E10	RMC171Y	" IC	1	
E11	QTST0029	" IFT	3	
E12	QTSK0036	" Diode	1	
E13	SC10SZ2A	" Diode	1	
E14	RUC107Z	Angle, Dial Chassis	1	
E15	XTW3+10QFX	Screw, + 3x10	2	
E16	XSS2+4FX	Screw, + 2x4	4	
E17	XQN17+4CFZ	Screw, + 1.7x4	2	
E18	XQN17+4AFX	Screw, + 1.7x4	1	
E19	QKT1364	Plate, Speaker Holding	1	
E20	XTN3+8G	Screw, + 3x8	1	
E21	RHR320Z	Insulator Sheet	1	
		PACKING MATERIALS		
P1	RPK840Z	Gift Box	1	
P2	RPN2919Z	Pad, Front Side	1	
P3	RPN2920Z	Pad, Rear Side	1	
P4	XZB26X36A02	Poly Bag	1	
		PRINTED MATERIAL		
Y1	RQX6492Z	Instruction Book	1	

RX-1810 DEUTSCH

■ TECHNISCHE DATEN

Stromversorgung:	Batterien; 9V (sechs Trockenbatterien UM-3, Größc AA)
Ausgangsleistung:	1.7W...(bei max.)
Frequenzbereich:	150~8,000Hz
Aufnahmesystem:	Wechselstrom-Vormagnetisierung
Bandgeschwindigkeit:	4,8cm/s
Spieldauer:	1 Stunde mit Cassette C-60
Spurlage:	Aufnahme und wiedergabe auf 2 spuren/1 Kanal in mono
Eingangsspannungen:	MIC; Empfindlichkeit 0,25mV, Mikrofon impedanz 200~600Ω DC IN; 9V
Ausgangsimpedanzen:	EARPHONE/EXT. SP; 8Ω
Andere Buchsen:	REMOTE; Zum Ein-und Ausschaltem des Bandlaufs aus der Entfernung
Lautsprecher:	3" (ϕ8cm) dynamischer PM-Lautsprecher
Wellenbereiche:	UKW; 87,5~108MHz MW; 520~1610kHz (577~186m)
Zeischenfrequenz:	FM; 10,7MHz AM; 455kHz
Empfindlichkeit:	UKW; 4.5μV bei 50mW Ausgangsleistung AM; 170μV/m bei 50mW Ausgangsleistung
Abmessungen (B×H×T):	230×125×52mm (9-1/16"×4-15/16"×2-1/16")
Gewicht (ohne Batlerien):	1kg (2 lbs. 3 oz.)

Änderungen vorbehalten.

■ BEZEICHNUNGEN IN DER SCHEMATISCHEN DARSTELLUNG

Remerkungen:

1. S1-1~S1-6: Aufnahme/Wiedergabeschalter (abgebildet in der Stellung „Wiedergabe").
2. S2-1~S2-4: Funktionsschalter (abgebildet in der Stellung „Cassette").
   2 = Cassette, 3 = AM, 4 = FM
3. S3: EIN/AUS-Schalter des Motors (abgebildet in der Stellung „AUS").
4. VR101: Klangregler.
5. VR102: Lantstärkeregler.
6. Die Markierung (▼) bezeichnet einen Meßpunkt, z.B; ▼ = Meßpunkt 1.
7. Alle Gleichspannungen sind mit einem Elektronik-voltmeter vom negativen Batterieanschluß aus zu messen.
   [ ] ...Stellung „FM", ( )...Stellung „AM", < >...Stellung „Aufnahme".
8. Batteriestrom: kein signal 120mA
   max. Ausgang (tape).....180mA
   max. Ausgang (radio) 270mA

■ INSTRUCTIONS D'ALIGNEMENT

AVANT DE PROCEDER AUX ALIGNEMENTS, LIRE ATTENTIVEMENT CE QUI SUT	
1. Régler le potentiomètre de volume au maximum. 2. La commande de tonalité au aigus. 3. Sélecteur bande/AM/FM sur AM ou FM.	4. Régler la tension sur 9V C.C. 5. Régler la sortie du générateur étalonné de fagon à ne pas surcharger les circuits.

■ ALIGNEMENT AM

	GENERATEUR ETALONNE ou GENERATEUR DE BALAYAGE		POSITION DE L'AIGUILLE SUR LE CADRAN	INDICATEUR (VOLTMETER ou OSCILLOSCOPE)	REGLAGE	OBSERVATIONS
	BRANCHEMENTS	FREQUENCE				
	ALIGNEMENT AM sur IF					
(1)	Faire une boucle de plusieurs tours de fil et émettre le signal dans la boucle du récepteur.	455kHz (modulation de 30% à 400Hz)	Point de non-interférence	Voltmètre branché à la bobine oscillatrice.	T4 (AM 1er IFT) T5 (AM 2er IFT)	Régler pour une sortie maximum.
	ALIGNEMENT HF sur AM					
(2)	〃	550kHz	550kHz [14.0mm(9/16")]	Voltmètre branché à la bobine oscillatrice.	L4 (bobine d'oscillateur AM) L2 (bobine d'antenne AM) (*1).	Régler pour une sortie maximum en glissant la bobine L2 le long du noyau en ferrite.
(3)	〃	1500kHz	1500kHz [96.1mm(3-25,32")]	〃	C16 (trimmer d'oscillateur AM) C6 (trimmer d'antenne AM)	Régler pour une sortie maximum. Refaire les étappes (2) et (3).
	(*1) Sceller la bobine à la cire après avoir achevé l'alignement.					
	ALIGNEMENT HF sur FM					
(4)	Brancher au ▼3 via 0.001μF. Côté négatif au ▼2.	10.7MHz	Point de non-interférence	Brancher la sonde vert. de l'oscilloscope au ▼5. Côté négatif au ▼7.	T2 (FM IFT) T3 (FM IFT)	Régler pour une amplitude maximum. (Voir fig. 9.)
(5)	〃	〃	〃	〃	T3 (FM IFT) (Secondaire)	Régler pour une amplitude maximum. (Voir fig. 10.)
	ALIGNEMENT HF sur FM					
(6)	Brancher au ▼1 via une antenne fictive FM. Côté négatif au ▼2. (Voir fig. 11.)	87.5MHz	87.5MHz	Voltmètre branché à la bobine oscillatrice.	L3 (bobine d'oscillateur FM). L1 (bobine TUNE FM)	(*2) Régler pour une sortie maximum.
(7)	〃	106MHz	106MHz [89.7mm(3-17/32")]	〃	C17 (trimmer d'oscillateur FM) C2 (trimmer TUNE FM)	(*2) Régler pour une sortie maximum. Refaire les étapes (6) et (8).
	(*2) Il y aura trois réponses de sortie; la syntonisation adéquate est la fréquence du milieu.					

BITTE DIESEN ABSCHNITT VOR DEM ABGLEICH SORGFÄLTIG DURCHLESEN

1. Den Lautstärkeregler in die Maximalposition stellen.
2. Den Klangredgler in die Höhenregler stellen.
3. Den "tape/AM/FM"-Wahlschalten auf "AM" oder "FM" stellen.
4. Eine Stromquelle von 9V Gleichstrom anlegen.
5. Der Signalgeneratorausgang sollte nicht größer sein, als für eine Ausgangsanzeige unbedingt notwendig ist.

	SIGNALGENERATOR oder WOBBELGENERATOR		STELUNG DES ABSTIMMREGLERS	MESSGERÄT (RÖHREN-VOLTMETER oder OSZILLOSKOP)	ABGLEICH	BEMERKUNGEN
	ANSCHLÜSSE	FREQUENZ				
	AM-ZF-ABGLEICH					
(1)	Aus einem Draht einige Schleifen-windungen bilden und das Signal in die Empfänger-schleife abstrahlen.	455kHz 30% mode. (Modulations-frequenz 400Hz)	Der Abstimmpunkt, wo keine Interferenz auftritt.	Ausgangslei-stungsmesser parallel zur Lausprecher-Schwingspule	T4 (1. AM-ZF-Abgleich) T5 (2. AM-ZF-Abgleich)	Die maximale Ausgangsleistung einstellen.
(2)	〃	550kHz	550kHz [14.0mm(9/16")]	Ausgangslei-stungsmesser parallel zur lautsprecher-Schwingspule	L4 (AM-Oszillatorspule) (*1) L2 (AM-Antennenspule)	Die maximale Ausgangsleistung einstellen. L2 Durch Verschieben abgleichen.
(3)	〃	1500kHz	1500kHz [96.1mm(3-25/32")]	〃	C16 (AM-Oszillatortrimmer) C6 (AM-Antennentrimmer)	Die maximale Ausgangsleistung einstellen. Die Schritte (2) und (3) wiederholen.
	(*1) Nach beendetem Abgleich ist der Antennenspulenkörper mit Wachs zu befestigen.					
	FM-ZF-ABGLEICH					
(4)	Über einen 0,001μF-Kondensator an den Meßpunkt ▼3 anschließen. Den negativen Ausgang am Meßpunkt ▼2 anschließe.	10,7MHz	Der Abstimmpunkt, wo keine Interferenz auftritt.	Die Vertikal-amplitude des Oszilloskops an den Meßpunkt ▼5 anschließen. Den negativen Ausgang den Meßpunkt ▼7.	T2 (FM-ZF-Abgleich) T3 (FM-ZF-Abgleich)	Die Maximalamplitude einstellen. (Siehe Abb. 9.)
(5)	〃	〃	〃	〃	T3 (FM-ZF-Abgleich) (Sekundärspule)	Die Maximalamplitude einstellen. (Siehe Abb. 10.)
	FM-HF-ABGLEICH					
(6)	Über eine künst-liche UKW-Antenne an den Meßpunkt ▼1 anschließen. Den negativen Ausgang am Meßpunkt ▼2 anschließen. (Siehe Abb. 11.)	87,5MHz	87,5MHz	Ausgangslei-stungsmesser parallel zur Lautsprecher-Schwingspule	L3 (FM-Oszillatorspule) L1 (FM-Abstimmspule)	(*2) Die maximale Ausgangsleistung einstellen.
(7)	〃	106MHz	106MHz [89.7mm(3-17/32")]	〃	C17 (FM-Oszillatortrimmer) C2 (FM-Abstimmtrimmer)	(*2) Die maximale Ausgangsleistung einstellen. Die Schritte (6) und (8) wiederholen.
	(*2) Es gibt drei verschiedene Ausgangsfrequenzkurven. Stimmen Sie die Mittelfrequenz ab.					

RX-1810 FRANCAIS

■ SPECIFICATIONS

Généralités:	Piles; 9V (six piles séches UM-3, dimension AA)
Puissance de sortie:	1.7W (c.a. max.)
Gamme de fréquence:	150 à 8.000Hz
Systéme d'enregistrement:	Polarisation c.a, effacement magnétique
Vitesse de bande:	4.8cm/sec.
Durée de lecture:	1 heure avec cassette C-60
Pistes:	Enregistrement et lecture mono 2 pistes, 1 canal
Entrée:	MIC; sensibilité 0.25mV; impédance applicable pour microphone 200~600Ω DC IN; 9V
Sortie:	EARPHONE/EXT. SP; 8Ω
Autres:	REMOTE; marche et arrêt à distance
Haut-parleur:	3" (8cm) haut-parleur dynamique à aimant permanent
Fréquence radio:	FM; 87.5 à 108MHz AM; 520 à 1610kHz (577 à 186m)
Fréquence intermédiaire:	FM; 10.7MHz AM; 455kHz
Sensibilité:	FM; 4.5μV pour une sortie de 50mW AM; 170μV/m pour une sortie de 50mW
Dimensions (l×h×Pr)mm:	230×125×52 (9-1/16"×4-15/16"×2-1/16")
Poids kg:	1.0 sans piles

Les spécifications sont sujettes à des changements sans spréavis.

■ SYMBOLES UTILISES DANS LE SCHEMA

Remarques:

1. S1-1 à S1-6: Commutateur enregistrement/lecture (montré en position lecture).
2. S2-1 à S2-4: Commutateur de fonction (montré en position bande).
   2...Bande, 3...AM, 4...FM.
3. S3: Commutateur marche/arrêt du moteur (montré en position arrêt "OFF").
4. VR101: Potentiométre de tanalité.
5. VR102: Potentiomètre de volume.
6. La marque (▼) signale un point de vérification. Ex: ▽ = Point de vérification 1.
7. La tension c.c. est mesurée au moyen d'un voltmètre électronique à partir de la borne négative de la pile.
   □...Position FM, ( )...Position AM, < >...Position Enregistrement.
8. Courant des piles. Pas de signal 120mA
   Sortie maximum (Bande) 180mA
   Sortie maximum (Radio).....270mA